

Water Operations and Conveyance Bundles Strengths and Weaknesses

Bundles	Strengths	Weaknesses
Foundation Water Operations and Conveyance Bundles		
1. Real-time operation of CVP/SWP	<ul style="list-style-type: none"> • Inexpensive • Highly reversible • Low impacts on other native species and human environment 	<ul style="list-style-type: none"> • May not effectively address entrainment issues unless effective monitoring techniques are in place • Low durability against seismic events and sea level rise • Limits where restoration may be implemented to maintain channels for conveyance and water quality • Limits using salinity as a tool to manage habitat and non-native species • Maintains low residence time thus reducing food production • May not achieve expectations for water supply
5. Isolated facility	<ul style="list-style-type: none"> • Maximum likely reduction in entrainment losses • Highly durable to seismic events and sea level rise • Highly adaptable to manage the Delta system for fish conservation • Maximizes ability to restore habitats throughout the Delta because constraints associated with existing conveyance and water quality functions are removed • Allows use of fluctuating salinity as a method to control non-native species throughout a large portion of the Delta • Maximizes opportunities to increase residence and food production • Likely to meet expectations for water supply 	<ul style="list-style-type: none"> • Expensive • Low reversibility • Large impacts on other native species and human resources associated with facilities construction • Uncertainties of benefits associated with fluctuating salinities • Peripheral aqueduct would create barrier to movement for some terrestrial species

HANDOUT #2

OPERATION BUNDLES ASSESSMENT SUMMARY

Bundles	Strengths	Weaknesses
7. Dual conveyance facility	<ul style="list-style-type: none"> Reduction in entrainment effects provided by operational flexibility Provides for opportunities to provide for fluctuating salinities in the Delta when in-Delta conveyance is not operated, limited opportunities when in-Delta conveyance is operated Could increase residence time during some periods and thus improve food production Depending on configuration, may provide opportunities for habitat restoration in west and central Delta Dual conveyance provides flexibility in how operations are conducted to maximize ecosystem benefits Likely to meet expectations for water supply 	<ul style="list-style-type: none"> Potential adverse impact on sturgeon associated with dredging Low durability against seismic events and sea level rise Expensive Low reversibility Large impacts on other native species and human resources associated with facilities construction
Other Water Operations and Conveyance Bundles		
2. Reduced demand/diversions	<ul style="list-style-type: none"> Inexpensive Low impacts on other native species and human resources Could increase residence time during some periods and thus improve food production Depending on the degree of reduction in demand/diversions, could be opportunities to restore habitat in west and central Delta 	<ul style="list-style-type: none"> Low durability against seismic events and sea level rise May not effectively address entrainment issues unless effective monitoring techniques are in place Limits using salinity as a tool to manage habitat and non-native species May not achieve expectations for water supply
3. Opportunistic exports	<ul style="list-style-type: none"> Highly durable to seismic events and sea level rise Reduction in effects of entrainment associated with limiting export periods 	<ul style="list-style-type: none"> Low reversibility Low durability against seismic events and sea level rise Large impacts on other native species and human resources Large impacts on other native species and human resources associated with facilities construction May not achieve expectations for water supply during some periods

HANDOUT #2

OPERATION BUNDLES ASSESSMENT SUMMARY

Bundles	Strengths	Weaknesses
4. SDA facility	<ul style="list-style-type: none"> Improved ecosystem water quality in south Delta Provides opportunities to restore habitat in northern tier of the Delta Allows use of fluctuating salinity as a method to control non-native species in the northern tier of the Delta Likely to meet expectations for water supply 	<ul style="list-style-type: none"> Low effect on reducing entrainment Expensive Low reversibility Questionable durability to seismic events and sea level rise Large impacts on other native species and human resources associated with facilities construction Potential for adverse effects on salmonids associated with creating false migration cues
6. Bifurcated SDA facility	<ul style="list-style-type: none"> Reduces entrainment losses by reducing exports from pumps Highly durable to seismic events and sea level rise Adaptable to manage the Delta system for fish conservation Provides ability to restore habitats throughout northern tier of the Delta and some possibility for restoring habitat in south Delta Allows use of fluctuating salinity as a method to control non-native species throughout a large portion of the Delta Improves residence time and food production throughout the Delta Likely to meet expectations for water supply 	<ul style="list-style-type: none"> Expensive Low reversibility Questionable durability to seismic events and sea level rise Large impacts on other native species and human resources associated with facilities construction Potential for adverse effects on salmonids and other species associated with creating false migration cues
8. San Joaquin River Corridor Isolated	<ul style="list-style-type: none"> Improves habitat and ecosystem conditions for San Joaquin River species Reduces entrainment of San Joaquin River fish Provides opportunity for habitat restoration in the west and central Delta Low impacts on other native species and human resources Moderately expensive Likely to meet expectations for water supply 	<ul style="list-style-type: none"> Limited beneficial or adverse impact to covered fish species outside of San Joaquin River Low durability against seismic events and sea level rise Low adaptability for managing the Delta system for fish conservation